Analysis of Arable Land Protection Policies of China

*1Humayun Khan, 2Nsabimana Leonard
1,2School of Economics and Management, Zhejiang Ocean University, China

This study investigated the arable land protection policies of China. A sample size of 150 staff members of different departments of census and agriculture was selected. We have used the non-probability technique and in non-probability, we selected the convenience sampling method. The data were analyzed using OLS model. The result of the study revealed that all the variables, which includes, land conversion policy, and land tickets are impacting positively except contract law, which depicts that there is an error in the model due to the short sample size. Finally, the findings revealed that although the contract law was beneficial for the farmers and the country, but still it should not be promoted as it imposes a negative effect as per the results.

Key words: Arable land, Land Policy, Contract law, Land Conversion

INTRODUCTION

Agricultural land is considered as one of the most important factors of production, providing many of the basic necessities of a living society. It has also been found form the study conducted by Obersteiner et al., (2016, P.25) that social development is closely associated with the utilization and development of resources related to land. As per the reports of the United Nations, land resources, especially the arable land holds great significance for a country (Zhou et al., 2017, P.38). Land for residential, industrial, commercial, community and use are also seeking agricultural land. Due to the decline in agricultural production, the department divides farmers into ordinary land. Land cover is limited by natural resources, and land use is greatly reduced by daily population growth and urbanization. With the loss of natural resources, there may be some problems and threats to food security (Gardi et al., 2015, P.911). It is a noticeable fact that China is an agricultural country and almost 30% of the total rice productions all over the globe are produced in China (Jiao et al., 2018, P.93). This made China to be one of the biggest exporters of rice globally. Therefore, it is important to protect the arable land as there is always a threat of big companies capturing agricultural lands for commercial use.

It has been an identifiable fact that arable land is the most significant piece of land holding a strong economic position. The crops produced from that land is responsible for two most important things; first, it is used to feed the people of the country and then it is used for economic development by exporting it (Dixon, 2015, P.9). The safety of cultivated land has been identified as one of the key factors affecting China's economic development. Economic reforms in the 1980s slowed the economic growth of China, but rapid rural employment put pressure on valuable agricultural land (Chow, 2017, P.1189). The urbanization process in the big cities of China is forming a platform. The loss caused by the expansion of civilization has become one of the main factors in the change of land use in the territory of China. The industrial growth of China is highlighted on many platforms. The rapid industrialization is helping China to sustain economic stability (Chow, 2017, P.1187). China's industrial sector and rapid urbanization have introduced unique criteria that prevent cities from leaving (Long & Liu, 2016, P.5). In this crisis, the Chinese government has accepted a substantial reduction in land use and introduced certain policies to protect the land. The Chinese government passed the “Land Administration of the People's Republic of China” on June 25, 1986 (Lian, Glendinning & Yin, 2016, P.721). The Constitution was enacted in accordance with the laws of the country and aims to support the governance of land where public rights are protected. Protecting and safeguarding the natural resources of the land, the government uses the constitutional policies. The protection of the agricultural land and promote social and economic development are also done with the help of those policies (Shi et al., 2016).
P.790). In order to protect cultivated land, the law stipulates that the state protects cultivated land and regulates the conversion of cultivated land to undeveloped land. Hence, the goal of the study set by the researcher is to analyze the arable land protection policies of China.

The main aim of the study is to analyze the arable land protection policies of China. In addition to this, we have developed two key objectives, which are to

- investigate the importance of arable land policies in China
- recommend efficient policies to protect the arable land in China

It has also been mentioned above that arable land is a significant component of the economy. The crops produced in China add value to the economy (Ito & Vézina, 2016, P.7). In the above section, the researcher has mentioned that China is experiencing slow economic growth; therefore, there is need for protection policies for arable land in the country. The following study is important for the policymakers of China, who are supervising the agricultural department (Hou et al., 2018 P.1011). In addition to this, the analysis will also help in examining what factors are responsible for the slow economic growth and what can contribute to the effective implementation.

The protection policies are needed to be implemented because of the threat that companies can capture this land just because of their industrial advantage. The analysis of the protection policies will help the government in determining the actual factors which are affecting the arable lands of China (Xu et al., 2015, P.471). In addition to the threats of companies, population growth is also a huge factor due to which, these lands are not being used for their original purpose. The arable lands are being used for the construction of houses because of the growing population. Therefore, the government has imposed restrictions to prohibit the usage of these lands because of any other reason other than agriculture.

**MATERIAL AND METHODS: OLS MODEL**

The aim of the current study is to analyze the protection policies of arable land. In this concern, we have chosen three independent variables i.e. population growth, land degradation and climate change to analyze their effect on arable land. In order to conduct the analysis of the collected data, the researcher has chosen the OLS model, also called (Ordinary Least Square Method) (Certo, Busenbark, Woo & Semadeni, 2016, P.2641). OLS is a method that is used to estimate the unknown parameters with the help of regression analysis (Siemsen, Roth & Oliveira, 2010, P. 471). It is a noticeable fact that regression analysis is the best approach for estimating the variables and to understand the strength of dependency.

**Indicators and Data Collection**

In this study, we have chosen the primary quantitative method to conduct the analysis. As per the research conducted by Cleary, Horsfall & Hayter (2014, P. 473) primary method is used to collect raw data from the participants. However, the method for collecting the data also depends on the research design of the study (Johnston, 2017, P.621). Hence, the research has used quantitative design, which includes numeric data. Therefore, in the primary quantitative method, the information is gathered by conducting surveys (Palinkas et al., 2015, P.537). In this concern, the researcher has conducted a survey from 150 staff members from different departments of census and agricultural department and collected the data through a survey questionnaire. In addition to the data collection and sample size, the researcher has incorporated non-probability sampling method and in non-probability method, convenience sampling has been used. This sampling method was chosen by keeping the feasibility of respondents and as well as researcher in mind. Moreover, the collected data is analyzed through statistical analysis by using OLS (Ordinary Least Square Method) (Vable et al., 2019, P.8).

**RESULTS**

In this study, the data has been collected from concerned agencies and “regression analysis” has been selected to achieve the objectives of the study by examining the dependence of arable land on land conversion policy, contract law and land tickets. Regression analysis can also be known as OLS “Ordinary Least Square Regression” that is used in this study to analyze data. According to Bolin and Hayes (2013, P. 335), OLS is used to estimate the relationship between variables by adding useful details. “Regression analysis” is the most effective assessment method to help measure the reliability of multiple variables (Montgomery, Peck and Vining, 2012, P.5). The results of the current study depict that the protection and preservation of arable land are depending on three policies namely, land conversion policy, contract law and land tickets. Therefore, arable land acts as dependent and other variables are treated as the independent variables. The results found from the “Regression Analysis” are presented below. The output of the research is divided into three sections, “model summary”, “ANOVA” and “regression coefficients”.

As per the study conducted by Min et al (2011, P. 378), a regression equation is considered significant only when the corresponding coefficient is greater than 1. As per the obtained coefficients, the following regression equation has been found:

\[ Y = 1.482 + 0.854X_1 + 0.227X_2 - 0.360X_3 + \欧元 \]

Where

- \( Y \) - Arable land
- \( X_1 \) - Land Conversion Policy
- \( X_2 \) - Land Tickets
- \( X_3 \) - Contract Law
- \( \欧元 \) - Error Term
DISCUSSION

In accordance with the regression equation, it can be interpreted that there exists a positive and direct relationship between arable land protection and land conversion policy and land tickets. It has also been found from the literature that all three policies will promote the growth of the agricultural land. In addition to this, the policies can vary with respect to their advantage to the land. Hence, the tests run by the researcher have concluded that out of all the three policies, two of them have a significant impact i.e. land tickets and land conversion policy. The findings of the above analysis highlighted that as the land conversion policy is observed, the arable land gets impacted positively by 0.854 times, by keeping other variables constant. This can be interpreted in a way that allocating land tickets to farmers can affect the arable land with an intensity of 0.227 or 22.7% by keeping other variables constant. This means that governmental implementation of the land conversion policy and contract land tickets should be promoted in the country. The concerned authorities should introduce more similar policies as they will aid the farmers in earning more and on the same hand, providing benefit to the economy of the country. Moving towards contract law, a negative or inverse relationship has been obtained, as contract law increases, it will impact arable land negatively. However, from the analysis of the literature and the findings, it has been observed that although the contract law was beneficial for the farmers and the country, but still, it should not be promoted as it imposes a negative effect as per the results.

CONCLUSION

Based on the above examination, the researcher has discussed certain policies, which can be implemented to protect the arable land. It was also found from the above study that social development is closely associated with the utilization and development of resources related to land as they hold great significance for a country, especially the arable lands. The agricultural land of China is being used for commercial purposes and it is acting as a threat to the global production of rice and other crops. Hence, China has implemented certain policies, which can protect its agricultural lands. The policies discussed in the study are land conversion policy, contract law, redline policy and land tickets. In these policies, the government relocate the farmers to other locations and re-cultivate their farmhouses into agricultural land. It was also indicated by the report that these policies have resulted in the increment of nearly 30.5% arable land from 2007 to 2017. The results illustrate land conversion policy and land tickets are positively impacting on arable land. In addition to this, the researcher has also suggested other policies as well. The first policy should be of prohibition of housing on agricultural land. Secondly, industries should not be allowed to develop any industrial plant on or near the arable land. The last policy is, farmers should be given a certain percentage of the profit derived from the exports of crops. All of the suggested policies should be considered by the agricultural department of China.
REFERENCES


Accepted 2 December 2019


Copyright: © 2019: Humayun and Nsabimana. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are cited.